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SPECIMENS FROM THE SIERRA NEVADA AND SOUTHERN COAST
DISTRICTS.

			Brown-naped.		Intermediate.		Gray-naped.	
			♂	♀	♂	♀	♂	♀
No.	10231,	U. S. N. M., Ft. Tejon, Cal.					*	
"	53662,	" Carson City, Nevada.					*	
"	53663,	" " "					*	
"	72645,	" Mts. near Ft. Tejon, Cal.						*
"	72647,	" " "					*	
"	73979,	" Calaveras Co., "			*			
"	80083,	" Walker's Basin, "					*	
"	84568,	" San Francisco, "					*	
"	84569,	" Carson City, Nevada.						*
"	91969,	" Baird, California.					*	
"	92480,	" Mt. Shasta, Cal.					*	
"	92482,	" " "					*	
"	95153,	" Carson City, Nevada.					*	
"	95154,	" " "				*		
"	100330,	" Campos, Lower California.					*	
"	105299,	" Little Bear Valley, California.						*
"	105300,	" " "					*	
"	234,	Dept. Agric., Argus Range, "					*	
"	247,	" " Inyo Co., "					*	
"	265,	" " " "					*	
"	—,	" " Coso Mts., "			*		*	
"	—,	" " Panamint Mts., "					*	
"	—,	" " " "					*	
"	—,	" " " "						*
"	—,	" " Cajon Pass, "					*	
"	—,	" " Kern Lake, "					*	
"	4058,	A. K. Fisher. San Gabriel Mts., "					*	

THE HABITS AND INDIVIDUALITIES OF THE RED-
SHOULDERED HAWK (*BUTEO LINEATUS*)
IN THE VICINITY OF BROOK-
LINE, MASS.¹

BY FRED. H. KENNARD.

THIS paper is intended to give, so far as is possible, the results of my own personal observations of this bird and its habits,

¹ Read before the Nuttall Ornithological Club, March 19, 1894.

through a number of years. All the data and deductions therefrom are entirely my own, and necessarily limited. Therefore, if they are at all at variance with the opinions of others on the subject, such non-agreements may be excused perhaps, on account of the small area over which my observations have been made, or perhaps on account of the local individualities of the birds observed.

While I had watched several pairs of birds for a number of years, and shinned almost every tree within a radius of ten miles from Brookline that looked as though it might have a Hawk's nest in it, I had been principally conversant with squirrels' and crows' nests, owing to my lack of knowledge of the Hawk's habits; and it was not till 1884 that my real experience began, and that I began to understand the habits of the bird, as well as the proper trees to climb.

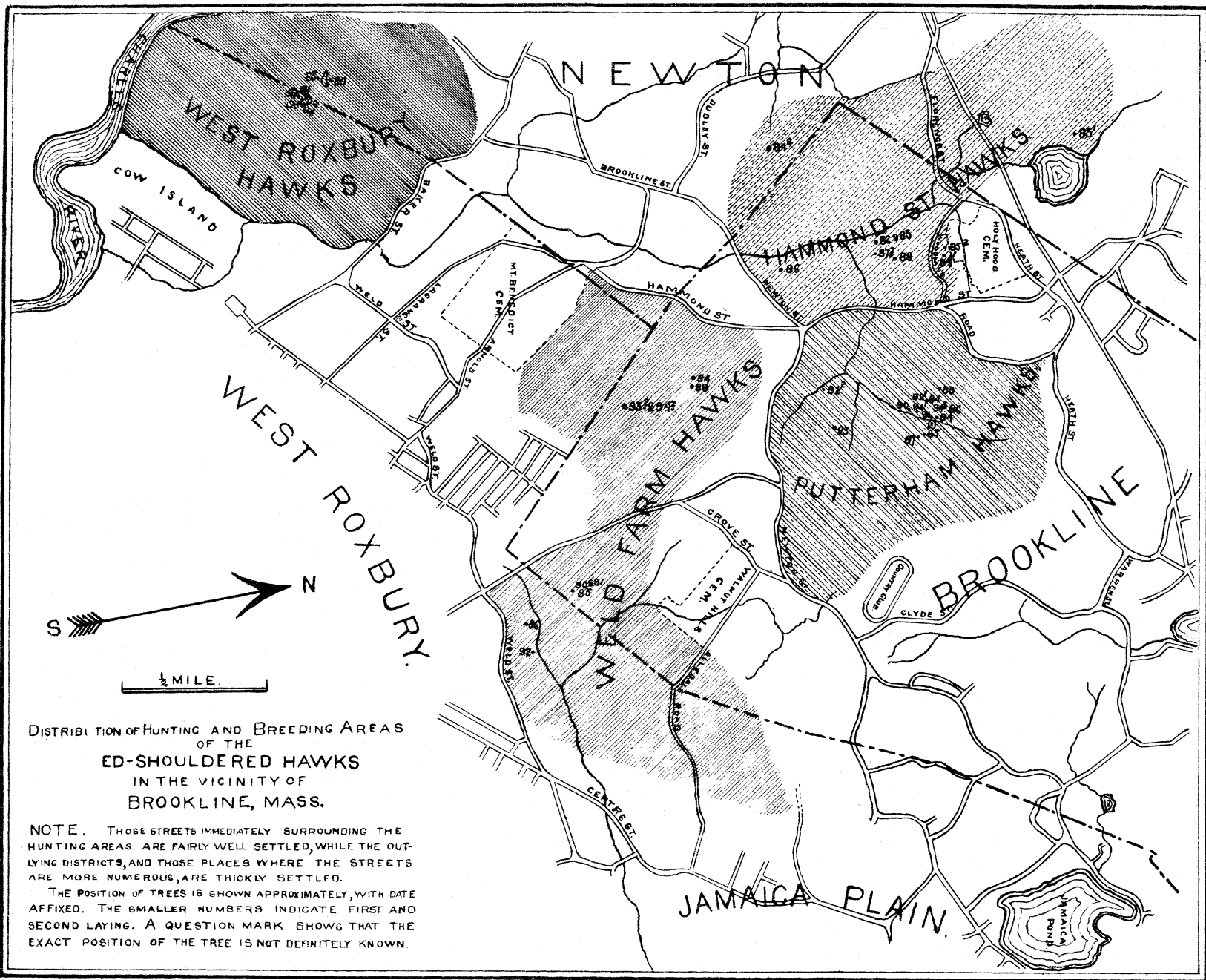
Since 1884 I can safely say I have never, but on two or three occasions, climbed to any nests that I supposed to be Hawks' nests, and not found them either inhabited or just robbed. These two or three occasions were when the old Hawks had been using some old nest for a roosting or feeding place, and had deceived me by the feathers they had left about the edge of the nest.

I would hereby recommend that any one in search of Hawks' nests should invariably carry opera glasses. It may save many feet of useless climbing.

For the sake of convenience, I will take up each pair of birds separately, and go through with their histories one at a time, rather than take them up in the order of my observations, and chronicle them by years. Again, for convenience, I have called each pair by a rather arbitrary and local name, on account of the particular territory in which they are most frequently seen, and in which they almost invariably chose to build.

There are but four pairs with whom I am on at all intimate terms, and at whose abodes I am received as a regular visitor. My data with regard to other Hawks of this species, whose acquaintance I may have made casually, as it were, I have purposely left out.

The Weld Farm Hawks have been thus called because of their marked fondness for that locality on the border line between



Brookline and West Roxbury, Mass., near the Weld Farm. The West Roxbury Hawks must not get mixed up with the above pair, as they live some two miles away, in a territory of their own, by the side of Charles River.

What I call the Hammond Street Hawks live invariably on the Newton side of Hammond Street, Brookline, sometimes in Newton, and sometimes on the Brookline side of the boundary line; though never coming to the Brookline side of Hammond Street, as that side is invariably occupied by what I call the Putterham Hawks.

I will take up with these Hawks in the above order, leaving the Putterham pair till the last, as they are perhaps of the most interest.

The Weld Farm Hawks inhabit a territory which is perhaps longer and more rambling in extent than any of the others, and which partly accounts for the fact that my observations of them have been fewer than of the others. They are also the shyest of all my friends, and have invariably built in the hardest trees to climb. They are very quiet, only screaming when it seems absolutely necessary for them to do so, in order to scare up their prey; and while they have built in almost every case nearer houses than any other pair, they seem to show a much more marked antipathy to coming either near their nest or near any one who is trying to watch them.

Though I have watched their nests for hours at a time, and until I should have thought their eggs would have spoiled, I have never been able to get a shot at them; and on only one occasion, when I covered myself up with leaves and sticks, have I known of their coming back to their nest while I watched, after once having been disturbed. Then, too, the female invariably got off the nest at my distant approach, and never waited till I pounded on the trunk of the tree, as other Hawks frequently do. Many Hawks, when one is robbing them, will come back and fly around screaming, either in the immediate vicinity or else high overhead. This pair never went through any such performance, but invariably and quietly disappeared.

It was on April 23, 1884, that I discovered my first nest of this pair, placed between 80 and 90 feet from the ground, at the top of a very tall and spindling soft-pine, at the foot of a high hill,

and by the side of a large swamp. The nest was so high up, and seemingly so old, that I should never have noticed it had it not been for the immense amount of downy feathers which clung to every outstanding stick or leaf. I was riding through the woods at the time, and had no climbing-irons, and so left the vicinity, as there was no Hawk in sight, and returned in the afternoon with a buggy, an Irishman, climbers, a two-bushel basket, and many fathoms of my mother's best clothes-line.

I had to cover myself up for over two hours before the Hawk would show herself sufficiently to be identified, and even then she only flew up, looked at the nest, and then quickly flapped off again. I managed to shin the tree, and procured the nest, as well as a set of two very peculiar, muddy-colored, and small-sized eggs, which were about one-half hatched.

On April 20, 1885, I found what I took to be this pair's nest about 40 feet up in the crotch of an enormous chestnut tree which grew beside a marsh near Weld Farm, and about three-quarters of a mile from where I had found it the year before. This nest was also covered with feathers, but after a terribly laborious climb, I found no eggs, neither did I even see the Hawks around it. Who or what robbed it, and how he or it got up to it, I never found out, unless by a tall ladder, for there were no marks of climbing upon the bark of the tree.

On April 14, 1886, I found another nest of what I now know to be this same pair, built in the crotch of a large oak, about 30 feet from the ground, and covered with feathers as the last two had been. This oak grew on a low hillside that overlooked some meadows, through which a brook ran, and was only about 200 yards from the nest of the previous year.

The Hawks behaved in exactly the same manner as they had on previous occasions. The nest was similar, and what is of more consequence, the eggs, four in number, which were about one-fourth hatched, were precisely like those found in 1884, queer, small, and mud-colored. I tried for nearly two hours to get a shot at the Hawks, but they never showed themselves even in the distance in that time.

I was unable to go after Hawks in 1887 at all, and while I have reason to think that this pair built in the same locality in 1888, only farther towards Jamaica Plain, I was unable to find their nest.

In 1889, April 24, I again found their nest in a tall pine, almost where I had found it in 1884. These eggs, which were four in number and almost fresh, were procured by Mr. N. A. Francis. They were, however, entirely different from those I had found in previous years, and of a more ordinary type; and the nest, too, was less surrounded by feathers, probably on account of the shortness of the time that the birds had been setting. Perhaps the old female Hawk had been shot. If she had not, she had entirely changed her views with regard to egg coloration.

In 1890 and 1891, I again observed these birds in the same locality, but was unable to find their nests, owing to the size of their territory, and the fact that they were apt to build in deciduous trees. One can easily examine all the evergreens in the vicinity, as there are comparatively few, but deciduous trees are often too numerous.¹

On April 24, 1892, I, however, found the nest again, near where I had found it in 1886. This time they had built in a pine, and about 75 feet from the ground. The eggs, four in number, and about one-fourth hatched, were similar to those procured in 1889; and as the female appeared to be much tamer than the one that built here in '84, '85, and '86, I concluded that perhaps I was right in inferring that she was new, and that her predecessor had perhaps been shot sometime during the year 1887.

During the winter of '92 and '93, most of the country through which this pair had been accustomed to hunt was denuded of trees, and it was not till late in June that I finally discovered that these Hawks had built in a large swamp, near to their nesting places of 1884 and 1889.

So it can be seen that this pair had a strict liking for one locality, even if that was an extended one. They invariably built in very large trees, three times in high and spindling pines, once in an enormous oak, and once in a tall chestnut. They are extremely shy and wary and very quiet.

¹ Since writing the above, Mr. A. L. Reagh, who lives in West Roxbury, has written me that in 1890 and 1891 this pair built in what was probably the same enormous chestnut that they had built in in 1885. He knows that they raised the 1890 brood, and is quite positive that they also raised the 1891 brood, as he saw young Hawks around there in the summer. I did not visit this tree in these years, as a house had been built near by, and I thought that the Hawks would probably build farther off.

The West Roxbury Hawks showed a very different individuality from the above pair. They were quite tame and very noisy, much more local in their habitat, and though they often built in large trees, they never built far from the ground, and always in a tree very easy to climb.

I first became acquainted with this pair on April 22, 1885. I found their nest, which contained one fresh egg, about 40 feet or three-fourths of the way up a small pine, which grew at the edge of, and leaned out over a small pond.

The female was very tame, and so hard to get off of the nest that pounding had no visible effect, and I was finally compelled to throw sticks at her. She was very vociferous after I had dislodged her, and flew screaming high above my head.

I came back here on April 25, and procured two handsome eggs, while the female acted as she had three days before.¹

On April 17, 1886, I again found this bird's nest, this time in a small hemlock that grew on a ridge about 30 feet high, on the opposite side of this same pond. I procured three fresh eggs, similar to those of the previous year, and also trapped the female Hawk. I tried to get her down the tree alive, but she was too fierce, and I was compelled to shoot her before I could climb near her.

I did not visit this place either during 1887 or 1888, but know that the male had mated again, as I found the deserted nest of this pair both in 1889 and 1890, and saw and heard both birds often. Both times they had built in a dark swamp, about two hundred yards from where I had previously found the nest, and each time in such easy trees to climb and in such conspicuous places that somebody else had got ahead of me. On May 26, 1891, I found the nest of this same pair of birds in this same swamp, and I copy from my notes as follows: "A nest in a tall large pine, forty feet up, and containing two downy young. They cried just like the old ones, and the female sat around on the neighboring trees, and often flew quite close to me. She seemed

¹ The female of this pair was evidently an immature specimen, and the eggs were very small, and the date of their laying was rather late for this species. Having found other nests where similar conditions prevailed, I infer that there is a possibility that young Hawks may breed a little later than they do when older, and perhaps their first eggs may be smaller.

very much worried, particularly when I was wringing the neck of one of the young. His crop and stomach proved to be full of feathers from some small birds, not distinguishable, hair and bones; and besides all this, he had pieces of a frog, one whole mole, and a snake ten inches long,—a moderate lunch for a youngster, who could hardly have been a fortnight old! He, by the way, was much the larger of the two. May 31, 1891, I returned to this nest and took the remaining young one. He had grown much in five days.”

In fact he who had been the smaller one on the 26th was now, five days later, as much bigger as the other one had been bigger than he. “His crop and stomach contained feathers, hair, bones, etc., besides parts of two frogs, and a mole. No wonder he grew! I wonder that the Partridge, whose nest I found near the foot of this tree, had been left unmolested!”

On April 28, 1892, Mr. N. A. Francis procured three eggs from a nest built by this same pair in the same small swamp in a very large, easily climbed tree, such as they always seemed to show such a preference for.

In 1893, though I saw this pair in the vicinity, I was for some reason entirely unable to find a trace of their nest. Perhaps they had taken to a deciduous tree in a very large and adjoining swamp, and were harder to find on this account.

Here is a pair of Hawks whose individualities are quite distinct from those of the previous pair. Instead of choosing several places distributed over an area of several square miles, they seem to have built almost invariably in a place not one-eighth of a mile square. While the previous pair were wild, shy, and seldom noisy, and built in high trees, either evergreen or deciduous, this pair were comparatively tame and confidential and very noisy, and so far as I know, always chose easily accessible evergreen trees for their nesting, and the female almost always waited till I pounded the tree before departing.

The Hammond Street Hawks first came to my immediate notice April 17, 1884, when I found a set of three fresh eggs in a nest built about 30 feet up a fair sized pine, by the side of a swamp, and in a very conspicuous place. There was nothing unusual about the nest, it being a bulky structure of twigs, leaves, etc., and lined with fresh hemlock boughs and strips of

long, stringy bark. The female has proved to be just an average Hawk not especially wild, and yet knowing how to keep her distance, always waiting till I have approached quite near the tree before flying off, and never waiting till I pounded on the trunk, as the West Roxbury birds did.

On April 23, 1885, I found the nest of this pair built near the top of an enormous hemlock nearly 60 feet from the ground, on a hillside beside a swamp, nearly a mile from the scene of last year's capture, and it was an exceptional case for this pair. I never knew them to go so far again, and I never knew them to build in any but small trees in very open woods, except on this one occasion.

On May 23, 1885, just one month later, I found the second nest of this bird in the top crotch of a small slender oak, about 40 feet from the ground, right beside the pine in which the nest had been built the previous year. There were three boys, each doing his best to climb up to the nest, without avail. I felt my honor at stake; and so, though I was clad in my Sunday best, I climbed that tree and got three fresh eggs for my pains.

April 15, 1886, I found this pair of Hawks apparently building a nest in a slender red maple in sight of the street, and not far from the scene of my last find. It proved, however, that they were obtaining sticks from an old nest, and were building three-fourths of a mile away, on the other side of the marsh, in a low pine tree. This nest was too near a Gypsy encampment, and I procured no eggs.

April 14, 1888, I went up to a Hawk's nest in this same locality, built in the crotch of a slender chestnut tree in a very conspicuous place, beside a path. It contained two Hawk's eggs, and one broken hen's egg. As the set was evidently imperfect, and as I did not care for the two remaining eggs on that account, I placed two steel traps in the bottom of the nest and waited around for three-quarters of an hour, with no result. I returned on the next day, however, and found both Hawks had been caught by their legs. I was unable to get them alive, and keep my own skin whole, and so was forced to shoot them.

I found out afterwards that Mr. J. A. Lowell of Chestnut Hill, Mass., had taken two eggs from this nest on April 7, and left two hen's eggs in their place, thus making the total number of the set four.

I have since ascertained that Mr. J. A. Lowell found what was probably this same pair breeding in the same locality, as follows: Last of May, 1882, three young in a chestnut tree; middle of April, 1883, three eggs from the *same* nest; May 13, 1884, two eggs in a hemlock tree (probably second brood); April 7, 1887, three eggs in a white pine; thus filling out my list, and accounting for this pair for every year.

This pair seems to have shown a marked liking for a certain not very large area, and they never but once strayed beyond it. They never but once chose a large tree, and did not seem to like evergreen trees any more than deciduous trees, and were, on that account, harder to find than the West Roxbury pair. They built three times in pines, twice in hemlocks, three times in chestnuts, and once in an oak: only once more than forty feet above the ground, and generally less, and almost always in conspicuous places. I have never known of their crossing Hammond Street, though their territory bordered it for half a mile, for on the other side of this street, and in a parallel area, is the abode of the Putterham Hawks. I have but seldom seen the Putterham birds cross Hammond Street, and I have never known of their building on any but their own side. Their territory is more compact than that of the Hammond Street pair, and contains thicker woods and more evergreen trees. As they are bounded on the west by the territory of the Hammond Street pair, and on the south by that of the Weld Farm pair, I have noticed that when not in their very particular haunts, they may be found to the north and east, which is pretty well civilized. Thus it is that each pair of these birds seems to hunt over its own area exclusively, and by a tacit understanding, never seems to trespass upon that of its neighbor. I have often been in a position to hear and see both the Hammond Street and Putterham pairs at once, and I have never seen them even so much as shake hands over their boundary line.

Though I had known of the Putterham Hawks for several years, and had known of others finding their nests, and in 1884 had found a nest myself in a pine, that had just been robbed of three eggs, it was not until 1885, on April 19, that I got my real introduction to them. This nest, containing three fresh eggs, was placed about 35 feet up in a large pine, in some wet woods about 150 yards from last year's nest.

On March 29, 1886, I found a nest with two fresh eggs, within 50 yards of where the nest had been built in 1884. I set traps in the nest, and on April 1, I found the female caught. She had also laid a soft-shelled egg, which showed that my set of two eggs was incomplete. The male mourned the loss of his mate only until he could get another, which he did during the following spring; and they built again in a pine tree near this same place in 1887. This nest was found and robbed by a friend of mine.

On April 20, 1888, I got two eggs out of a nest in the crotch of a chestnut tree beside a path about a half of a mile away. It was a full set, as I watched it several days before taking it. The male bird, which I caught but let go again, did some of the setting, and was so small that I was puzzled till I caught him as to his identity.

On April 9, 1889, I saw feathers in the above nest, and on this account shinned up to it, only to find the nest empty. About 100 yards off, however, I found in a slender oak the bird's real nest with two fresh eggs, and was forced to infer that they had been using nest number one for a resting and feeding place only. As I did not want to 'get left' this way again, I knocked the nest, from which I had just taken the eggs, out of the tree, of which more anon.

On April 13, 1890, I found one egg in a nest in a low pine in a dark swamp, about 100 yards from the last nest. I shot the male Hawk as he flew off, taking him for an instant for a Cooper's Hawk which I knew was breeding somewhere near; so I was compelled to take the egg, as I doubted whether the female would go on any further with the duties of maternity.

This nest, by the way, was an old nest, and one in which I had seen feathers two years before. I had then climbed the tree and found some of the feathers and bones of a Partridge, on which one of these Hawks had probably been feeding.

April 16, 1891, the female had evidently got a new mate, for I found a set of three eggs in an old nest placed perhaps forty feet up in the crotch of a tall chestnut, and within 50 feet of the place where I had found their nest in 1884. This nest had, I think, been built for a second set, in May, 1889. It was not there in April of that year, and I found it there that autumn. In 1890 I had come very near climbing up to it because of

feathers around it, but I was fortunately prevented by the timely finding of the real nest in a pine tree near by, as told above.

In 1892 this pair built in the same slender oak from which I had knocked their nest in 1889, and in identically the same crotch. Somebody, however, had robbed it before I found it. Still these birds were not discouraged, for on June 22 of the same year Mr. Francis took three fresh eggs from a nest which I feel sure belonged to this pair, built about a half a mile off on the other side of a swamp.

On June 10, 1893, after searching for the nest of this pair intermittently, though carefully, for two months, I finally located them about 50 feet up in an enormous pine, about a half a mile from their usual location. I had always wondered why these Hawks did not build in this pine, or in one of the group to which it belonged, for they are all nearly 150 feet high, and about four to five feet in diameter at the base; but, nevertheless, I became, to put it mildly, a trifle chagrined when I found where the nest really was.

On June 12 I returned, and by the aid of ropes, strings, climbing irons, and two other people, I managed to get up the tree, though it took me twenty minutes to do so, and less than twenty seconds to come down.

There were three young birds, which I will describe later; and while their parents flew screaming around my head, I lowered them down in a basket and took them home alive, leaving their persevering parents to start anew, if they cared to.

This pair seem to have shown no particular preference in their choice of trees, as they built five times in evergreens and five times in deciduous trees. They evidently preferred one small locality for their nesting, though their hunting grounds were quite extensive.

Summing up, and comparing the histories of these birds, so far as I can judge from my limited experience, I should say that they almost invariably choose as a place for nesting, a tree, either evergreen or deciduous, beside some swamp, brook, or wet meadow; and if they once learn to feel at home in a certain locality, provided that that locality does not become too open and civilized, they will almost invariably return to it, even when repeatedly disturbed.

If they are both killed, and their hunting grounds are good, these are soon occupied by others; or if one is killed, the other soon returns with a new mate. After I had killed the Hammond Street Hawks in 1888, Mr. Lowell writes me that in May, 1891, he found a nest containing two young birds in this same territory; and on April 8, 1892, he procured two fresh eggs from the same nest. This would go to show that if there is good hunting territory, whose owners vacate for some reason, it is immediately taken possession of by the young of some of their neighbors.

Once laying claim to any territory they are exclusive to a degree. This exclusiveness, however, seems to apply to their own species merely, for other Hawks are allowed to hunt in their territories at will. I have known of a Sharp-shinned Hawk's nest being almost within a stone's throw of a Marsh Hawk's nest, and both these nests to be on the borders of a meadow, beside which a pair of Red-shouldered Hawks nested each year. Four times in my life I have known of Cooper's Hawks building either in sight of, or almost beside the nest of a Red-shouldered Hawk.

In their choice of trees in which to build they show a wide diversity and often a strict individuality, and in most cases, a marked love of locality which may be more or less modified by the individuality of the bird.

In their habits, too, each pair seems to show its own characteristics, some being shy and quiet, others very noisy and easily approached. I noticed, too, that those Hawks whose hunting grounds are thickest and contain the best timber and the most evergreen trees are most apt to winter with us; for instance, the Putterham pair are almost always to be found and heard winter as well as summer, while the Hammond Street pair, whose grounds are bleak, are almost never to be found during the winter. While many of these Hawks stay with us all the year round, I believe there is a certain migratory movement among them, for I know they become less in number in winter, and the only reasonable inference is that some of them go South. During the past winter, 1893-'94, until Feb. 22, when I again saw one of the Putterham birds, I have failed to see any of these Hawks, though often in the field. Even the Putterham birds seem to

have been scared away by the severe weather of December, to return only when warmer weather was promised.

That they may return in consecutive years to the same nest, if not disturbed, and sometimes even when they have been disturbed, I have no doubt. I personally have never found them laying in the same nest two years in succession, though I have known of their using the same nest twice, with an interval between. They seem very apt to use their old nests for roosting and feeding places, as feathers from them, as well as from birds they have killed, would seem to indicate.

Although the Report on 'Hawks and Owls,' issued by the Agricultural Department, seems to show that this bird is not only harmless, but truly beneficial, I must say that Hawks differ, and Red-shouldered Hawks certainly.

If it were not for this personal equation, this individual characteristic, as it were, where would the teachings of Darwin and Spencer be?

In each of the Hawks of this species that I have examined, I have invariably found feathers and birds' bones, and lots of them. The frogs alone, of which they eat great numbers, would seem to more than balance the injurious rodents of which they are also fond; and as for insects, I do not believe that the Brookline Red-shouldered Hawks eat as many in a year as an ordinary frog could in a day. They must differ in their habits, and accommodate themselves to their surroundings. Perhaps they are, as a species, beneficial, particularly where they hunt in open country; but in such country as we have around Brookline, I am sure they do more harm than good. Both birds help build their nest, a more or less clumsy structure of twigs, dried leaves, etc., and almost invariably lined with fresh hemlock or pine boughs and the long stringy inner bark of the hemlock tree or the outer bark of the wild grape vine. The male also assists in the incubation. When their nest is disturbed they are more or less officious according to their individuality, and according to the length of time they have been setting. They are particularly worried if their young are disturbed, though I have never known of their really attacking a man. They may do so in the far West; but they know us too well in the East.

Their eggs, so far as I can judge, are generally laid at intervals of about two days, and I have often noticed that if there is any

material difference in the quantity of markings, that the egg that is first laid has the most, while the last is most free from spots.

With regard to their second laying when disturbed, it is necessarily hard to get accurate data, and I am not at all certain that they always do lay again. I do know, however, that they are extremely erratic, both as to time and place, when they do lay again. If you have learned to know a pair, you can tell pretty well about where their first nest will be; but their second nest hardly ever, for they are very apt to go off to some unexpected place in some swamp or elsewhere, where you have never known of their breeding before.¹

NOTES ON THE GENUS *HELEODYTES*, WITH A DESCRIPTION OF A NEW SUBSPECIES.

BY A. W. ANTHONY.

IN HIS catalogue of the 'Birds of Lower California' Mr. Bryant makes mention of the unusually heavy markings on the lower parts of all of the *Heleodytes affinis* taken by him on the overland trip from Magdalena Bay to San Quintin. It was these notes on the species that suggested the investigation that led to the present paper.

During my first season in Lower California (1887) collections were made from Ensenada — sixty miles south of San Diego — to San Andres, about Lat. 28° 30', covering a distance of about two hundred miles in latitude. A fair series of Cactus Wrens were taken, but these, unfortunately, were stolen, together with my entire season's collection. Later a series was secured from about San Quintin and San Telmo — fifty miles north — but the gap of about one hundred and fifty miles that intervenes between Mr. Bryant's northernmost specimens and mine from San Quintin remains unrepresented. However, a sufficient series of Peninsula and Southern California skins has been brought together to change, somewhat, the status of both the Cape species as well as

¹ The 1894 nests, found since this paper was written, have been added on the accompanying map.